

Human TGFBR3 ELISA Kit ab213837

1 Image

Overview

Product name Human TGFBR3 ELISA Kit

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
1	16	186pg/ml	8.74	= 4.7%
2	16	1370pg/ml	102.75	= 7.5%
3	16	5554pg/ml	294.36	= 5.3%

Inter-assay

Sample	n	Mean	SD	CV%
1	24	182pg/ml	11.83	= 6.5%
2	24	1499pg/ml	133.41	= 8.9%
3	24	5882pg/ml	376.44	= 6.4%

Sample type Cell culture supernatant, Serum, Cell Lysate, Hep Plasma, EDTA Plasma

Assay type Sandwich (quantitative)

Sensitivity < 10 pg/ml

Range 156 pg/ml - 10000 pg/ml

Assay time 3h 30m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview The Human TGFBR3 Enzyme-Linked Immunosorbent Assay (ELISA) kit (ab213837) is designed for the quantitative measurement of Human TGFBR3 in cell culture supernatants, cell lysates, serum and plasma (heparin, EDTA).

The ELISA kit is based on standard sandwich enzyme-linked immune-sorbent assay technology.

A monoclonal antibody from mouse specific for TGFBR3 has been pre-coated onto 96-well plates. Standards (NSO, G21-D781) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TGFBR3 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex is added and unbound conjugates are washed away with PBS or TBS buffer. HRP substrate TMB is used to visualize HRP enzymatic reaction. TMB is catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Human TGFBR3 amount of sample captured in plate.

**Notes** Betaglycan also known as Transforming growth factor beta receptor III (TGFBR3), is a cell surface chondroitin sulfate / heparan sulfate proteoglycan >300 kDa in molecular weight. Betaglycan binds to various members of the TGF-beta superfamily of ligands via its core protein, and bFGF via its heparan sulfate chains. It is not involved directly in TGF-beta signal transduction but by binding to various member of the TGF-beta superfamily at the cell surface it acts as a reservoir of ligand for TGF-beta receptors. By cDNA array and immunohistochemistry analyses, it is found that TGFBR3 expression is lost in most breast cancers examined in association with loss of heterozygosity of the TGFBR3 locus. TGFBR3 expression decreased during breast cancer progression, and low levels predicted decreased recurrence-free survival in patients. Loss of TGFBR3 through allelic imbalance is a frequent genetic event during breast cancer development that increases metastatic potential. Also, TGFBR3 can localize transformation in the heart and play an essential, non redundant role in TGF beta signaling.

**Platform** Pre-coated microplate (12 x 8 well strips)

## Properties

**Storage instructions** Store at -20°C. Please refer to protocols.

Components	Identifier	1 x 96 tests
ABC Diluent Buffer	Blue Cap	1 x 12ml
Adhesive Plate Seal		4 units
Antibody Diluent Buffer	Green Cap	1 x 12ml
Anti-Human TGFBR3 coated Microplate (12 x 8 wells)		1 unit
Avidin-Biotin-Peroxidase Complex (ABC)		1 x 100µl
Biotinylated anti-Human TGFBR3 antibody		1 x 100µl
Lyophilized recombinant Human TGFBR3 standard		2 vials
Sample Diluent Buffer	Green Cap	1 x 30ml
TMB Color Developing Agent	Black Cap	1 x 10ml
TMB Stop Solution	Yellow Cap	1 x 10ml
Wash Buffer (25X)		1 x 20ml

**Function** Binds to TGF-beta. Could be involved in capturing and retaining TGF-beta for presentation to the

signaling receptors.

#### Sequence similarities

Contains 1 ZP domain.

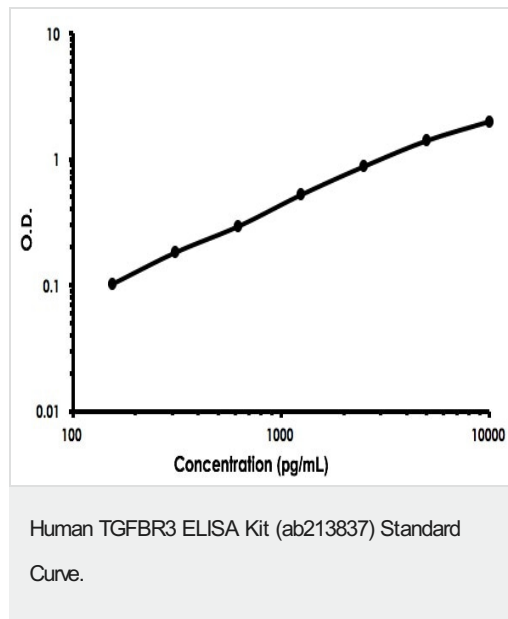
#### Post-translational modifications

Extensively modified by glycosaminoglycan groups (GAG).

#### Cellular localization

Secreted. Secreted > extracellular space. Cell membrane. Exists both as a membrane-bound form and as soluble form in serum and in the extracellular matrix.

## Images



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